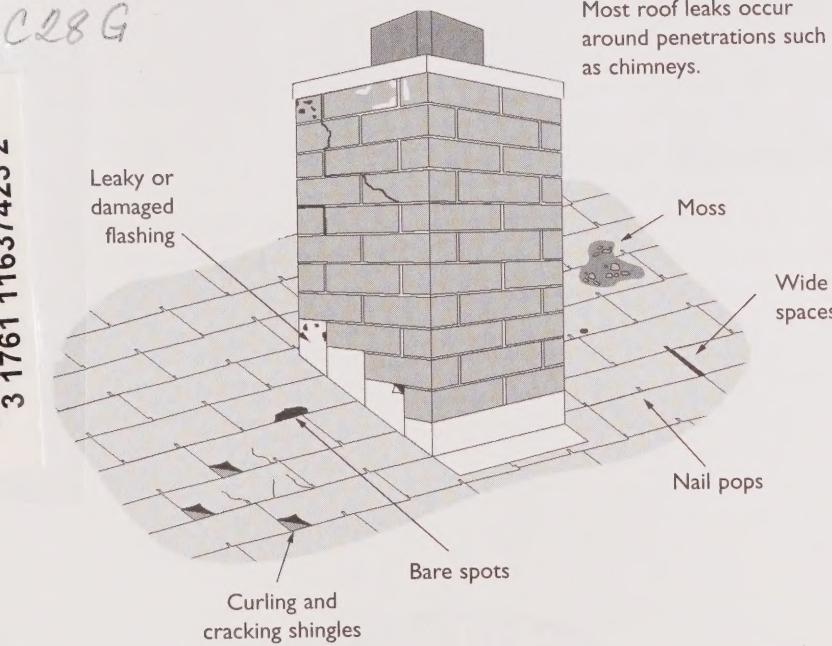


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## ABOUT YOUR HOUSE

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BEFORE YOU START REPAIRING  
OR REPLACING ROOF FINISHESCA/  
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All roofs need repair or replacement from time to time. Regular maintenance such as cleaning eavestroughs and drains can help prolong the life of your roof. Periodic roof inspections will help you spot developing problems before they cause costly damage to your home. The extent of the problem and age of the roof are key factors that can help you decide whether to do repairs or completely replace the roof finish.

HOME TO CANADIANS  
Canada

# Common Situations

Roofing comes in various materials, qualities and price ranges. Ongoing maintenance, suitable for the specific roof and material, is important and contributes to how the roof performs, when it needs repairs and when it needs replacement.

When you make decisions about roof work, there are many things to consider:

- **Repair or replacement**—The roof may have localized damage such as a few missing shingles, have widespread damage or have exceeded the life expectancy of the product.
- **Structural problems**—The roof may appear to sag in some areas because of insufficient strength or deterioration of framing or sheathing.
- **Ice damming**—There may be damage to the roofing material and structure due to build-up of ice during the winter.
- **Flashing**—Leaks may occur at the flashing.
- **Moisture problems**—excess moisture in the attic area can lead to deterioration of the roof structure.
- **Roofing material**—The roofing material may fail due to poor installation or may not be the proper type for the specific application.
- **Safety and regulations**—The extent of the project may require special equipment and training that should only be done by professionals. Working on roofs is dangerous and requires strict safety precautions.

# Healthy Housing™

Renovating is an ideal time to make your house healthier for you, the community and the environment. When doing your roof repairs or replacement, be sure to consider:

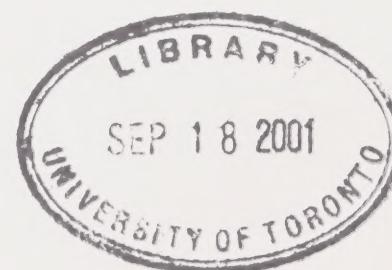
- **Occupant health**—potential noxious fumes and odours during roofing work that would require a temporary ventilation strategy.
- **Energy efficiency**—well ventilated roofs and insulated ceilings to reduce the need for summer cooling and winter heating.
- **Resource efficiency**—durable materials that will last longer, composite materials with recycled content.
- **Environmental responsibility**—hazardous waste disposal at designated municipal locations for containers of waste products (caulking, paints, roof tar).
- **Affordability**—durable products that will minimize repair needs and reduce ongoing operating costs and replacement expenses.

## House as a System

A house is much more than just four walls and a roof—it's an interactive system made up of many components including the basic structure, heating, ventilation and air conditioning (HVAC) equipment, the external environment and the occupants. Each component influences the

performance of the entire system. A renovation provides an opportunity to improve how your house performs.

Roofs play an important role in the system by shedding water before it can cause damage to building components.



# Avoid Surprises

There are many different conditions that affect roof finishes. Taking the time to examine your needs and the options that are available is the right way to start to plan for your roof

## Ask yourself...

### Repair or replacement

- Are there damaged or missing individual shingles?
- Is there localized corrosion of metal roofing?
- Is there widespread damage to asphalt shingles such as missing gravel, curled or broken shingles?
- Are wood shingles rotting?
- Is the roofing material on flat roofs blistered, cracked or showing bare patches?
- Is there moss growth on the roof?
- Do you have the skills to properly assess the condition of the roof?

### Structural problems

- Does the roof ridge appear straight?
- Does the roof surface appear to be flat without sags or dips?
- Does water pool in some areas of a flat roof?

repair or replacement job. Here are some of the likely situations that people encounter. However, every situation is unique and you may need to hire a qualified professional

to do a thorough investigation, find the problems and suggest the best solutions.

## Consider your options...

## ...and if you don't

- Replace individual shingles or sections of metal roofing.
- Repair shallow surface corrosion of metal roofing by priming and painting.
- Replace roofing material that has widespread damage or deterioration. All roofs have a limited life span.
- Seek advice from a roofing contractor or home inspector.

- If damaged or worn out roofing is not repaired or replaced you will run the risk of having to replace rotten sheathing, fascia or structural members.

## Skills to Do the Job

At any phase of a roof project, even during the initial investigation, safety is a primary concern. Climbing up and down ladders and walking on roofs requires extreme care and attention, especially on steeper roof slopes. However, a homeowner with good fix-it skills and safety practices may be able to do some of the roofing work such as:

- Minor replacement or repairs.
- Repair of flashing or caulking.
- Stripping of existing roofing.
- Installation of new roofing.

Consider using a professional roofing company that has experience, proper equipment, professional licences where required, liability coverage and

- The problem will only get worse.
- An unusually heavy snow or ice load could break structural members.

compensation insurance. Remember to obtain all necessary permits. Ensure that contractors working on your house use safe working practices and are covered by workers' compensation. Staging and roof harnesses must be used to protect workers from falling. Protect yourself, your family and your home.

## Ask yourself...

### Ice damming

- Does the roof have eave areas that are prone to ice build-up?
- Does the snow readily melt off of large areas of the roof?
- Is the attic warm through the winter?

## Consider your options...

- Improve insulation and air sealing to reduce heat loss and to limit warm air from leaking into the attic from the living space. Ice damming is most commonly caused when snow melts on a warm roof and then freezes at the colder roof edge.
- Install eave heater cables as a compromise solution, although these are not always effective.

## ...and if you don't

- Ice damming will continue to cause water to back up under roof shingles and cause leaks.
- Ongoing leakage will wet the roof structure and insulation and can leak onto the ceiling areas causing rot, staining and structural deterioration.
- Shingle edges can break from built-up ice.

## Flashing

- Are the various roof flashings in good condition?
- Is any caulking that has been used to seal flashing material damaged or missing?
- Is there damage to valley flashing material?
- Was the flashing installed properly?

- Repair or replace damaged or improperly installed flashing.
- Replace damaged or missing caulking.
- Consider using a trained professional to deal with damaged flashing. Flashing details can be complicated.

- Damaged or worn out flashing will allow water penetration.
- Ongoing leakage wets the roof structure and can leak onto the ceiling areas causing rot, staining and structural deterioration.

## Moisture problems

- Is the roof framing or underside of sheathing damp or black?
- Are the ceiling finishes water stained?
- Is the attic insulation wet or damp?

- Check for roof leaks. Repair any leaks that you find. Attic moisture can be the result of a roof leak or condensation from warm moist air leaking into the attic from the living space.
- Air seal the ceiling area. Ensure that exhaust fans vent outside and not into the attic.
- Provide attic ventilation.

- Continued moisture accumulation will lead to rot and staining of the structure and finishes.
- Damp insulation will lose some of its insulating value.
- Mold may grow in the attic area.

## Rewards

- Timely roof repairs will protect the structure and finishes of your house from damage.
- A properly installed new roof will provide years of protection for your house.



## Ask yourself...

## Consider your options...

## ...and if you don't

### Roofing material

- Is the current roofing material appropriate for the job? Would another material be a better choice?
- Is the roof structure capable of supporting the roof material (for example, clay tiles)?
- How old is the roofing material? Has it reached the expected life of the product? Would a different material be a better choice?
- What types of flashing materials are available?
- What are the special installation procedures for the various roofing choices?

- Research the available products. Find out which products quality builders and renovators are using in your area. Building supply companies, home shows contractors and the Internet are sources for information on products and application.
- Assess the roof structure, particularly if a heavy roofing material is being considered.
- Choose materials that are appropriate for your house, have an acceptable life expectancy and warranty.
- Review manufacturers' recommendations for proper installation over existing roofs. Use a qualified installer, especially if special procedures are needed.

- Some roofing material may not be warranted for certain applications. For example, regular shingles cannot be used on roofs with a very low slope.
- The roof structure may not be able to support the load and could collapse from the weight of the heavy materials.
- The roofing material you choose may not last as long as you expect. This will result in poor performance and increased cost from another roofing job.
- Improperly installed materials may void the warranty.

### Safety and regulations

- What safety equipment is required to provide protection from falls?
- What precautions are needed to protect the building and landscaping from construction debris?
- What permits are required?
- Are workers covered by worker's compensation insurance? Does the contractor have a professional license if required by provincial law?
- As the homeowner, do you have liability insurance that will cover accidents due to the construction work?

- Ensure that the required safety protection is being used.
- Make sure to cover parts of the building and landscaping that are at risk from debris.
- Find out what building permits are required.
- Ask for proof that workers are covered by worker's compensation insurance and that they have professional licenses where required. Get a written contract.
- Check with your insurance agent about adequate liability coverage.

- Someone could get hurt.
- Building officials may stop your project for non-compliance with codes and regulations.
- Penalties or fines may be imposed.
- Lack of insurance could lead to financial liability.



**Use the Roof Assessment Worksheet to record the present condition, any problems in your roof, proposed upgrades and preliminary costing.**

Roof Assessment Worksheet			
Roof dimensions:	Present condition/problems	Present condition/problems	Cost
Roof materials			
• Curled or cracked shingles			
• Missing shingles			
• Moss growth			
• Leaks			
• Corrosion of metal flashings			
• Corrosion of metal roofing			
• Curled, split, loose or rotted wood shingles			
• Blisters, bare patches, curled edges on flat roofs			
• Damage to ventilators or roof vents			
• Other			
Flashing			
• Valleys			
• Eaves			
• Chimneys and vents			
Structure			
• Sagging portions			
• Soft spots in roof deck			
Other			

## Costing Your Project

The cost of the roof repair or replacement will depend on the condition of the existing structure, local labour, material costs and the extent of the work to be done. A good budget checklist will help you to develop a realistic cost for the project before you start. Some of the items to include are:

- Repair of roof sheathing and fascia.
- Installation of new roofing.
- Repair of roof structure.
- Permit costs.
- Repair of existing roofing.
- Safety equipment.
- Repair of roof flashing.
- Waste disposal.
- Stripping of existing roofing.
- Cost of roofing materials.

## Other useful information from Canada Mortgage and Housing Corporation

### *Healthy Housing Renovation Planner,*

\$34.95 (60957)

### *Homeowner's Inspection Checklist,*

\$19.95 (62114)

### *Renovator's Technical Guide,*

\$34.95 (61946)

### *About Your House* fact sheets, Free

*Measuring Humidity in Your Home,* (62027)

*After the Flood,* (60515)

*Fighting Mold,* (60516)

*How to Hire a Contractor,* (62277)

*Before You Start Renovating Your Basement—  
Structural Issues and Soil Conditions,*  
(62248)

To order these publications (order number is shown in brackets) and to find out about other CMHC publications, contact:

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Canada Mortgage and Housing Corporation  
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Ottawa ON K1A 0P7

Phone: **1 800 668-2642**

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